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# **You Depress Me!**

## **Quality of Personal Relationships and Depressive Symptoms Among College Students**

*Hannah Zackrison*

**Abstract:** Depression is the most common mental health disorder affecting adolescents and adults in the United States. The purpose of this study was to explore the relationships among depressive symptoms and college students' self-reported quality of personal relationships with parents and peers. There were no significant gender differences in quality of relationship with parents, but there were differences with peers. The spirituality analysis suggested that a higher level of spirituality was related to better quality of personal relationships, as well as, fewer depressive symptoms. There were significant differences in depressive symptoms among various ethnicities in this sample. Future research with a larger, more ethnically diverse sample would be beneficial, and spirituality needs further exploration to confirm significance.

Mood disorders, including depression, make up one of the most common categories of mental health disorders affecting adolescents and adults in the United States (National Institute of Mental Health [NIMH], n.d.). Past research pointed to the influential role of personal relationships in early adolescent depression, but there was very little research conducted among college students. Research had also shown that quality of personal relationships was related to depressive symptoms among adolescents, but this had not been explored using college students. This study was conducted to explore the relationships between depressive symptoms and quality of personal relationships among college students.

Several computer databases were used to search for sources on adolescent depression. PsycARTICLES, PsycBOOKS, and PsycINFO databases were used to find sources between the years of 2001 and 2011. The depression search terms included *depression*, *mood disorder*, *conflict*, *depressive symptoms*, and *emotional adjustment*. The relationship terms included *adolescence*, *relationships*, *influence*, *peer relationships*, and *mother/father child relationships*.

The following review examines the research literature that focuses on the relationship between adolescent depressive symptoms and their quality of peer and family relationships. Specifically, the role of peer relationships, the impact of maternal and paternal depression, and the role of parent and sibling relationships in adolescent depression are described.

### **Role of Peer Relationships**

Adolescence is a time of social transition when peer relationships become more important and adolescents are influenced by their friends' depressive symptoms (e.g., Stevens & Prinstein,

2005; Van Zalk, Kerr, Branje, Stattin, & Meeus, 2010). Friendships characterized by difficult social interactions, such as anger, withdrawal, and emotionally dependent behaviors, are risk factors for depressive symptoms (Allen et al., 2006; Stevens & Prinstein, 2005). These risk factors are higher for girls than boys (Caprara, Gerbino, Paciello, Di Giunta, & Pastorelli, 2010; Connell & Dishion, 2008). When compared to adolescents without friends, teenagers with non-depressed friends showed lower levels of depression, and teenagers with depressed friends showed higher levels of depression (Brendgen et al., 2010). These levels of depression among friends may be associated with high co-rumination (e.g., Brendgen et al., 2010; Stevens & Prinstein, 2005; Van Zalk et al., 2010).

The *selection–influence–de-selection model of depression* shows that adolescents are more likely to select friends that are similar to them in depressive symptoms (Van Zalk et al., 2010). Similarities between friends can be partially attributed to the fact that friends' depressive symptoms predict increases in adolescents' depressive symptoms. Adolescents also de-select those friends who do not have depressive symptoms similar to their own.

### **Impact of Maternal and Paternal Depression**

Goodman and Tully (2008) found that mothers are very influential in determining whether or not their children will develop depressive symptoms. Adolescents with depressed mothers suffer from significantly higher rates of depression as compared to other groups. The worst depressive symptoms are associated with the worst maternal relationships, and conversely, healthy mental states are associated with the best mother relationships (Sheeber, Davis, Leve, Hops, & Tildesley, 2007). Maternal depression can lead to inadequate parenting, negatively affecting children's development of social and cognitive skills, which are essential in reducing the risk factors for depression (Goodman & Tully, 2008; Nolan, Flynn, & Garber, 2003).

Reeb and Conger (2009), as well as Sheeber, Davis, Leve, Hops, and Tildesley (2007) found that paternal depression has very similar effects on adolescents as maternal depression does. Paternal depressive symptoms are associated with an increase in adolescent depressive symptoms. This effect is stronger in female adolescents than in male adolescents, suggesting that daughters experience more depressive symptoms as a result of their fathers' depressive symptoms (Reeb & Conger, 2009). With father-adolescent closeness, the negative effects of paternal depression increased significantly as father-adolescent closeness decreased. This effect was also strong in female adolescents, showing that as father-daughter closeness decreased, female depressive symptoms dramatically increased.

### **Role of Parent Relationships**

Davis, Sheeber, and Hops (2002) and Repetti, Taylor, and Seeman (2002) examined the influential role of parents in adolescent depression, and their studies indicate that depressed adolescents tend to have less supportive and less nurturing family environments than non-depressed adolescents. Parents can inadvertently promote positive and negative reinforcements that influence the development of depressive symptoms (Davis et al., 2002). The teenage years

are associated with increased conflict between parents and children. With mothers, adolescents whose behavior involved issues of autonomy and relatedness were predicted to have higher future levels of depressive symptoms (Allen et al., 2006). Perceived family conflict in African American female adolescents has shown a direct positive effect on depression, and these conflicts predict depression partially through indirect effects on parental attachment (Constantine, 2006).

**Parental attachment.** Parental attachment plays a mediating role between conflict and depression, suggesting that insecure attachments lead to more depressive symptoms and higher levels of conflict indicate lower levels of parental attachment (Caprara et al., 2010; Constantine, 2006). Families with these characteristics are classified as risky families, and adolescents from risky families are more likely to have mental health risks (Repetti, Taylor, & Seeman, 2002). Rejection is often a part of these families, and results show that rejection prospectively predicts depression over time, but it could not be proven that depression prospectively predicts rejection over time, although this relationship should not be ruled out (Nolan et al., 2003). Despite all the negative influences, parents can also have positive influences through good relationships and interventions that decrease likelihood of depression (Brendgen, et al., 2005; Connell & Dishion, 2008).

### **Role of Sibling Relationships**

The empirical literature on the role of siblings in adolescent depression revealed that greater amounts of sibling conflict were associated with more depressive symptoms (Kim, McHale, Crouter, & Osgood, 2007). Siblings learn about social interaction and adjustment from their interactions with each other, and this can occur in a positive manner or in a negative manner. Increases in sibling intimacy were linked to increases in peer social competence, and the opposite was also true. For female adolescents, an increase in sibling intimacy meant a decrease in depressive symptoms. Positive sibling relationships are important for healthy adjustment.

The consensus in the literature on adolescent depression is that adolescence is a time of intrapersonal transition and adjustment that is navigated with the support or lack of support from parental, sibling, and peer relationships. Parental relationships classified by conflict and lack of nurturing are risk factors for increased adolescent depression. Peer relationships characterized by rejection and negative social interaction lead to higher levels of depressive symptoms. Sibling conflict and intimacy also plays a role in the development or deterrence of depressive symptoms.

### **Critique of the Literature**

**Sampling issues.** The body of literature on adolescent depression is quite extensive. While the extent of the literature is beneficial, the samples used in the studies were not always representative of the whole population. For example, in a study conducted by Allen et al. (2006), the researchers gave the students in a school the choice to participate or not; the most depressed adolescents may not have been included in the sample because their depression made them more

likely to be withdrawn, so they would have chosen not to participate. This would make the sample unrepresentative of the population of depressed adolescents.

A sampling issue was also present in the lack of research on ethnic minorities. There was very little diversity among the samples; the majority of participants were Caucasian. Out of the 15 studies analyzed, only two had ethnically diverse samples that included African Americans, Latinos, Italians, and other ethnicities. Another sampling issue was the lack of research focusing on mid-to-late adolescence (i.e., ages 15 to 20). Most studies only sampled early adolescents, and the average age represented was about 14 years old. Both these sampling gaps in the literature limit the generalizability of the results on the adolescent population.

**Types of research.** Most of the research described in this literature review was longitudinal studies, and this may have increased the validity of the results. There were only a few experiments conducted in the literature, therefore the majority of the studies could not conclude cause-and-effect relationships between depressive symptoms and the quality of personal relationships. This area would benefit from more true experimental designs because there is an overuse of self-report methods.

**Depression and college students.** There is a lack of research focusing on college students in the area of depressive symptoms and quality of personal relationships as they relate to each other. Studies have been done on various facets of this subject, but not in this same context. College students have been studied to see how their quality of peer relationships influences alcohol use (Borsari & Carey, 2006). Studies have looked at family emotion socialization and distress in different ethnicities among college students (Saw & Okazaki, 2010), as well as loneliness, attachment, and use of social support in university students (Bernardon, Babb, Hakim-Larson, & Gragg, 2011). Studies have also looked at spirituality and depression, but not necessarily among college students (Desrosiers & Miller, 2007). This gap in the literature demonstrates a need for research on the relationships between depressive symptoms and quality of personal relationships among college students, specifically accounting for gender, age, academic standing, spirituality, and ethnicity.

## **Purpose of Study**

The purpose of this study was to explore the relationships among depressive symptoms and college students' self-reported quality of their personal relationships.

## **Definition of Terms**

The following terms were operationally defined for this study:

1. *Depressive symptoms* were defined as persistent behaviors and thought patterns that have a negative impact on healthy psychological functioning. These included withdrawal from social interaction, emotional dependency, loneliness, decreased activity and performance, increased conflict with family, low self-esteem, anger, fear, sadness, and fatigue.

2. *Quality of personal relationships* referred to the extent to which an individual felt supported and valued in the context of a peer or family relationship. Level of quality was the degree to which a person felt loved, accepted, uplifted, safe, happy, and secure in trust. It also had to do with the level of conflict, anxiety, and resentment within a relationship. A quality relationship was one that was mutually beneficial and supportive.
3. *Age level* was defined by the categories of late adolescence and young adulthood. Late adolescence was classified as ages 18 to 20. Young adulthood was classified as age 21 to the 30s.
4. *Spirituality* was defined as an individual's personal relationship with God and the level of support he/she received from this relationship. It included personal beliefs about the dependability of God, hope and trust in God, and prayer as a connection to God.

### **Research Hypotheses**

Two research hypotheses guided this study:

1. There are gender differences in quality of relationships among college students.
  2. There are gender differences of depressive symptoms among college students.
- Each of these hypotheses was tested in its null form.

### **Research Questions**

Eight research questions were addressed in this study:

1. Do freshman and sophomores have lower quality of relationships than juniors and seniors?
2. Do freshman and sophomores have higher levels of depressive symptoms than juniors and seniors?
3. Do college students classified as late adolescents (e.g. ages 18-20) differ from students classified as young adults (e.g. ages 21-30s) in their quality of personal relationships?
4. Is there a relationship between age and depressive symptoms among college students?
5. Is a higher level of spirituality associated with greater quality of relationships among SAU students?
6. Is a higher level of spirituality associated with fewer depressive symptoms among SAU students?
7. Do some ethnicities have higher quality of personal relationships than others?
8. Are some ethnicities more inclined than others to develop depressive symptoms?

## **Method**

### **Participants**

Eighty one students (44 males, 37 females) from Southern Adventist University, ages 18 to 35 ( $M = 20.71$ ,  $SD = 3.06$ ), participated in this study. The sample included freshman (42.5%),

sophomores (17.5%), juniors (12.5%), seniors (23.8%), and those who reported their class standing as special (3.8%) (See Figure 1). The sample consisted of White (58.8%), Black (5%), Asian (3.8%), and Native Hawaiian or other Pacific Islander (2.5%). The remaining participants reported themselves as being from another race (12.5%) or from two or more races (17.5%). This sample of convenience was taken from a general education undergraduate wellness course and an upper-division psychology course. Participants received a candy incentive upon completion of the survey. All participants were treated in accordance with the Ethical Principles of Psychologists and Code of Conduct of the American Psychological Association (American Psychological Association, 2010).

## **Materials**

The instrument constructed by the researcher for this study was the Zackrisson Life Experience Inventory (ZLEI). It consisted of four sections measuring depression, quality of personal relationships, spirituality, and demographic information. The ZLEI was based on two pre-established tests and a newly created spirituality test. Self-report demographic questions included gender, age, academic standing, and ethnicity. The ethnicity categories were based on the US Census Bureau 2000 census. Depression and quality of relationships were counterbalanced in this survey to reduce potential confounds. Version 1 of the survey presented Section I as the depression scale and Section II as the quality of relationships inventory. Version 2 of the survey presented Section I as the quality of relationships inventory and Section II as the depression scale. Participants did not know which version they received.

Depression was measured using the Center for Epidemiologic Studies Depression Scale (CES-D) (Radloff, 1977). This test consisted of 20 statements, and it measured depressive symptoms during the past week on a four-point, Likert-type scale where 0= rarely or none of the time (less than 1 day), 1= some or a little of the time (1-2 days), 2= occasionally or a moderate amount of time (3-4 days), and 3= most or all of the time (5-7 days) (Williams & Galliher, 2006). Examples of statements from the CES-D included: "I felt depressed," "I had crying spells," and "I felt like everything I did was an effort." The total severity was computed by reversing the scores for numbers 4, 8, 12, and 16, the statements that controlled for response bias. The score was the sum of the 20 questions, and the possible range was 0-60, where a higher score indicated more severe depressive symptoms. A score of 16 points or more was considered a high level of depressive symptoms.

The CES-D has shown good reliability and validity. Internal consistency measured by Cronbach's alpha was high across many populations, ranging from 0.85-0.90. It had high split-half reliability, ranging from 0.77 to 0.92, as well as moderate correlations in test-retest reliability ( $r = 0.51-0.67$ ). Validity with other variables varied from -0.09 to 0.48, and the CES-D has demonstrated both construct and concurrent validity (Goldman, Mitchell, & Egelson, 1997).

College students' quality of personal relationships was measured using the Inventory of Parent and Peer Attachment (IPPA) (Armsden & Greenberg, 1987). It was a self-report questionnaire consisting of 25 statements for the mother, 25 statements for the father, and 25

statements for peers. Responses were ranked on a five point Likert scale where 1 = almost never or never true, 2 = not very often true, 3 = sometimes true, 4 = often true, and 5 = almost or always true. It was scored by reverse-scoring the negatively worded statements and then adding all of the responses for each section. Reliability for the IPPA has been tested, resulting in a Cronbach alpha that ranged from 0.87 to 0.93. The IPPA has also been shown to be valid.

The spirituality section in the Zackrison Life Experience Inventory consisted of six questions measured on a four-point Likert-type scale (1 = strongly disagree, 2 = disagree, 3 = agree, 4 = strongly agree). Scores could range from 0-24, and the higher the score, the higher the level of spirituality. This section did not have a measure of reliability and validity, and therefore served as a pilot for this study (Cronbach's alpha = .89).

### **Design and Procedure**

This is a non-experimental descriptive, correlational study using survey methodology. Participants were recruited through a general education wellness course and an upper-division psychology course. After permission was obtained from the professors, the researcher gave a brief introduction and then asked students to participate in the study. Two research assistants helped hand out and collect the surveys in the undergraduate wellness course because it was a large class. In the upper-division psychology course, the surveys were placed upside down on the desks by the researcher before the students began class. Participants were given an informed consent form, and after it was signed and collected by the researcher, the students completed the survey. The survey was completed and returned during the same class period. An alternate activity was given to students in the upper-division psychology course who had previously participated in the study or who were in the same research design class as the researcher. Participation in the study took approximately no more than 15 minutes per participant. Regarding the collected informed consent forms, there was one less informed consent form than surveys collected. One individual did not turn in the informed consent form, but by completing the survey, he or she gave consent for the researcher to use the data.

### **Data Analysis**

The data was scored and coded using the corresponding key. The first three sections of the ZLEI were scored independently. The depression scale was scored out of 60 total points, where a score of 16 or higher represented a high level of depressive symptoms. The quality of relationships section was divided into three parts, and each part was scored out of 25 points. The third section on spirituality was scored out of 24 possible points. A research assistant was trained to help score the surveys and to aid in the coding process. The data was then entered into SPSS 18.0 for analysis. One survey was excluded from the analysis because it was not properly completed ( $n = 80$ ). The research hypotheses and questions were tested using independent samples *t*-tests, one-way ANOVAs, Kendall's tau correlations, and Pearson Product-Moment correlations.



## Results

Descriptive analysis revealed that for the sample of students ( $n = 77$ ), the depression scores averaged 15.81 with a standard deviation of 9.27 (See Table 1). This suggested that participants may suffer from higher, but not very serious, levels of depressive symptoms. The descriptive analysis run for quality of personal relationships showed that for the three scores, quality of relationship with mother ( $n = 80$ ,  $M = 98.69$ ,  $SD = 16.39$ ), quality of relationship with father ( $n = 78$ ,  $M = 93.84$ ,  $SD = 19.18$ ), and quality of relationships with peers ( $n = 79$ ,  $M = 98.03$ ,  $SD = 15.50$ ), participants generally had high quality of personal relationships, particularly with mothers and peers. The spirituality analysis revealed that participants had strong positive beliefs about their personal relationship with God ( $n = 79$ ,  $M = 20.07$ ,  $SD = 3.61$ ).

### Gender and Quality of Relationships

The first hypothesis stated that there were gender differences in quality of relationships among college students, and this was tested with an independent samples  $t$ -test. Male and female participants had similar means in quality of relationship with mothers ( $M = 98.78$ ,  $SD = 15.02$  and  $M = 98.58$ ,  $SD = 18.05$ , respectively) (See Table 2). The mean of reported quality of relationships with fathers was slightly higher for male participants than female participants ( $M = 94.77$ ,  $SD = 19.12$  and  $M = 92.81$ ,  $SD = 19.45$ , respectively). Male participants had a much lower mean than female participants in reported quality of relationships with peers ( $M = 94.25$ ,  $SD = 16.80$  and  $M = 102.32$ ,  $SD = 12.78$ , respectively). Results showed that the hypothesis was only supported for one of the three measures of quality of relationships. There were no significant gender differences in quality of relationships with mothers ( $t(78) = .05$ ,  $p = .96$ ) and fathers ( $t(76) = .45$ ,  $p = .66$ ), but there were significant gender differences in quality of relationships with peers,  $t(75.47) = -2.42$ ,  $p = .02$ .

### Gender and Depressive Symptoms

The second hypothesis stated there were gender differences in depressive symptoms among college students, and this was tested using an independent samples  $t$ -test. Female participants reported higher depression scores than male participants ( $M = 17.64$ ,  $SD = 9.68$  and  $M = 14.29$ ,  $SD = 8.74$ , respectively). This three point difference was not statistically significant ( $t(75) = -1.60$ ,  $p = .11$ ), therefore the data failed to reject the null hypothesis and the results are inconclusive.

### Research Questions

**Academic standing.** The first research question was to see if freshman and sophomores had lower quality of relationships than juniors and seniors. The means for quality of relationships were fairly consistent within each academic standing (See Table 3). A one-way ANOVA showed that there were no significant academic standing differences in quality of relationship with mothers ( $F(4,75) = .27$ ,  $p = .90$ ), fathers ( $F(4,73) = 1.142$ ,  $p = .34$ ), or peers ( $F(4,74) = .21$ ,  $p = .93$ ). The data failed to reject the null hypothesis, so the results were inconclusive. This suggests

that depressive symptoms were not related to academic standing, therefore freshman and sophomores did not appear to have lower quality of relationships than juniors and seniors. The second research question explored whether freshman and sophomores had higher levels of depressive symptoms than juniors and seniors. Freshman had a lower depression score ( $M = 13.09$ ,  $SD = 7.38$ ), and sophomores had a high depression score ( $M = 18.54$ ,  $SD = 11.04$ ). Juniors had a lower depression score ( $M = 14.78$ ,  $SD = 8.81$ ), and seniors had a high depression score ( $M = 19.53$ ,  $SD = 9.94$ ). The “special” category had the lowest score ( $M = 11.67$ ,  $SD = 10.02$ ). These differences were not statistically significant as shown in a one-way ANOVA ( $F(4,72) = 2.04$ ,  $p = .10$ ). The data failed to reject the null hypothesis and the results are therefore inconclusive.

**Age and age level.** The third research question examined whether college students classified as late adolescents (e.g. ages 18-20) differed from students classified as young adults (e.g. ages 21-30s) in their quality of personal relationships. An independent samples  $t$ -test was used to analyze the data. The means for late adolescents and young adults in reported quality of relationships with mothers were almost identical ( $M = 98.73$ ,  $SD = 18.03$  and  $M = 98.62$ ,  $SD = 13.31$ , respectively) with only a 0.11 difference. For quality of relationship with peers, there was only a small difference between late adolescents and young adults ( $M = 99.58$ ,  $SD = 16.31$  and  $M = 95.36$ ,  $SD = 13.86$ , respectively) (See Table 4).

There were larger differences between late adolescents and young adults in reported quality of relationships with fathers ( $M = 96.04$ ,  $SD = 18.14$  and  $M = 89.91$ ,  $SD = 20.67$ , respectively). Results revealed that there were no significant differences in age level and quality of relationship with mothers,  $t(78) = .03$ ,  $p = .98$  (See Table 4). For quality of relationship with fathers, there were large mean differences in age level and quality of relationship, but these differences were not statistically significant,  $t(76) = 1.36$ ,  $p = .18$ . There were also no statistically significant differences in age level and quality of relationships for peers,  $t(77) = 1.17$ ,  $p = .25$ . The results were inconclusive, but they suggested that younger and older college students have similar quality of personal relationships.

The fourth research question looked for a relationship between age and depressive symptoms among college students. The mean age was 20.71 ( $SD = 3.06$ ), and the average depression score was 15.81 ( $SD = 9.27$ ). The Pearson Product-Moment correlation showed a very low positive correlation between age and depressive symptoms ( $r = 0.12$ ,  $p = .30$ ,  $r^2 = 1\%$ ), suggesting that as students get older, their depressive symptoms increase. Only 1% of the variation in depressive symptoms was explained by its relationship to age, and this relationship was not statistically significant, therefore the data was inconclusive.

**Spirituality.** The Pearson correlation found significant relationships between quality of personal relationships and spirituality (See Table 5). There was a moderately positive correlation between spirituality and quality of relationship with mothers ( $r = .40$ ,  $p = .000$ ,  $r^2 = 16\%$ ). Only 16% of the variation in relationships was explained by its relationship to spirituality. There was a low correlation between spirituality and quality of relationship with fathers ( $r = .34$ ,  $p = .002$ ,  $r^2 = 12\%$ ), where only 12% of the variation in relationships was explained by its relationship to

spirituality. There was a low correlation between spirituality and quality of relationships with peers ( $r = .30, p = .007, r^2 = 9\%$ ), where only 9% of the variation in relationships with peers was explained by its relationship to spirituality. These results suggested that a higher level of spirituality was related to greater quality of personal relationships.

The sixth research question examined if a higher level of spirituality was associated with fewer depressive symptoms among students. A Pearson correlation showed a significant low negative relationship between spirituality and depressive symptoms ( $r = -.26, p = .02, r^2 = 7\%$ ), where only 7% of the variation in depressive symptoms was explained by its relationship to spirituality. The relationship was weak, but this suggested that a higher level of spirituality may be related to fewer depressive symptoms among students.

**Ethnicity.** The seventh research question explored whether some ethnicities had higher quality of relationships than others. White participants had the highest quality of relationship with mothers ( $M = 100.91, SD = 16.90$ ), and Asians had the lowest ( $M = 83.00, SD = 15.10$ ). Those who classified their ethnicity as “other” had the highest quality of relationship with fathers ( $M = 97.60, SD = 18.70$ ), while Asians had the lowest ( $M = 84.67, SD = 14.47$ ). For quality of relationship with peers, Asians had the highest score ( $M = 103.00, SD = 8.54$ ) and Blacks had the lowest ( $M = 88.00, SD = 15.90$ ). The one-way ANOVA did not find any statistically significant differences in ethnicity and quality of relationships with mothers ( $F(5,74) = 1.07, p = .39$ ). There were no statistically significant differences in ethnicity and quality of relationships with fathers ( $F(5,72) = .21, p = .96$ ). There were also no statistically significant differences in ethnicity and quality of relationships with peers ( $F(5,73) = .52, p = .76$ ).

The final research question explored whether some cultures were more inclined than others to develop depressive symptoms. There were differences in participants’ depression scores, with Asians and Native Hawaiian/Pacific Islands reporting the highest depression scores ( $M = 29.33, SD = 9.02$  and  $M = 29.25, SD = 7.42$ , respectively) (See Table 6). Results of a one-way ANOVA found that there were statistically significant differences in depressive symptoms among different cultures ( $F(5,71) = 2.76, p = .025$ ). A LSD post hoc test showed that these differences were found in Asians and Native Hawaiian/Pacific Islanders. These results may not have been representative because there were only 3 Asian and 2 Native Hawaiian/Pacific Islander participants.

### **Other Interesting Findings**

The data analyses revealed a few unexpected significant correlations the researcher did not intentionally test for. A Pearson Product-Moment correlation showed significant positive correlations between the three aspects of the quality of relationships. A moderately positive correlation was found between quality of relationship with mother and with father,  $r = .57, p = .00, r^2 = 32\%$  ( $n = 78$ ). Thirty-two percent of the variation in quality of relationships with mothers was explained by the relationship to quality of relationships with fathers, suggesting that as quality of relationship with mothers increases, so does quality of relationship with fathers. A low positive correlation was found between quality of relationship with mothers and with peers,

$r = .24$ ,  $p = .03$ ,  $r^2 = 6\%$ , where 6% of the variation in quality of relationship with mothers was explained by the relationship to quality of relationships with peers ( $n = 79$ ). This suggests that as quality of relationship with mothers increases, so does quality of relationships with peers. A moderately positive correlation was found between quality of relationship with fathers and with peers,  $r = .41$ ,  $p = .00$ ,  $r^2 = 17\%$ , where 17% of the variation in quality of relationship with fathers was explained by the relationship to quality of relationship with peers ( $n = 78$ ). This suggests that as the quality of relationship with fathers increases, so does the quality of relationship with peers.

### **Discussion**

The purpose of this study was to explore the relationships among depressive symptoms and college students' self-reported quality of personal relationships. Two research hypotheses and eight research questions guided this study. The first hypothesis was that there are gender differences in quality of relationships among college students. The analysis found that men and women did not significantly differ in the quality of relationships with their parents, but they did differ in the quality of relationships with peers. On average, women reported having better quality relationships with peers than did male participants.

The second hypothesis was that there are gender differences in depressive symptoms among college students. The analysis revealed that on average, men had lower depression scores than women, but the differences were not statistically significant. This supported the general consensus of the literature on adolescent depression that women typically have higher depression scores than men, but the lack of significance could indicate that college students are just more adjusted, so there are fewer gender differences.

The first research question was to determine if freshman and sophomores had lower quality of relationships than juniors and seniors. The analysis did not find any significant academic standing differences in the quality of personal relationships. This suggests that students' quality of personal relationships tends to stay about the same over the course of their college career. The second research question asked whether freshman and sophomores had higher levels of depressive symptoms than juniors and seniors. Results revealed that there were no significant differences between freshman, sophomores, juniors, and seniors in their depressive symptoms. This finding may be attributed to the fact that the class standings were not evenly represented, and therefore the differences were not significant.

The third research question asked whether college students classified as late adolescents (e.g. ages 18-20) differed from students classified as young adults (e.g. ages 21-30s) in their quality of personal relationships. The results showed that there were no differences between late adolescents and young adults in quality of relationships, implying that college students have a fairly constant quality of relationships. The fourth research question looked for a relationship between age and depressive symptoms among college students, and no statistically significant correlation was found. This lack of significance may be because participants were not evenly distributed among the different ages.

The fifth research question explored whether a higher level of spirituality was associated with greater quality of relationships. A significant positive relationship between spirituality and quality of personal relationships was found, which implies that a higher level of spirituality may be related to having better quality relationships. The sixth research question examined whether a higher level of spirituality was associated with fewer depressive symptoms. The analysis revealed a significant negative relationship for spirituality and depressive symptoms, suggesting that a higher level of spirituality may be related to fewer depressive symptoms.

The seventh research question explored whether some ethnicities had higher quality of relationships than others, and these results did not show any significance. Therefore, some ethnicities may not have higher quality of relationships than others, but this cannot be assumed because the sample was not very diverse. The final research question examined whether some ethnicities were more inclined than others to develop depressive symptoms. Differences in depressive symptoms were found in Asians and Native Hawaiian/Pacific Islanders.

There were a few limitations in this study. A sample of convenience was used, therefore it was not representative of all college students. This sample was also not very ethnically diverse. Because ethnicity was a major variable, not having a diverse sample was harmful to the study. This study also had time constraints for completion. Overall, this was neither a comprehensive nor exhaustive study of depressive symptoms and quality of personal relationships.

One significant difference between the results of this study and established literature on adolescent depression was that this study did not reveal gender differences in depressive symptoms. The literature shows that women generally have more depressive symptoms than men. The results of this study also showed that there were no dramatic age differences in the areas of depressive symptoms and quality of personal relationships. The literature showed that quality of personal relationships is related to depressive symptoms in adolescents, but results of this study suggest that this finding may not be as strong for college students. College students may be more adequately prepared to handle conflicts and may feel more freedom to choose their relationships. There is little research looking at how spirituality is related to depressive symptoms and quality of personal relationships, so this research is helping to fill a gap in the literature.

Depression is one of the most common mental health disorders affecting adolescents and adults. In order to effectively treat depression, clinicians need to know what influences and causes it. It is important to understand the relationship between depressive symptoms and students' quality of personal relationships so that interventions can be determined to decrease symptoms and improve support. The role of spirituality in these areas was also an important topic to explore, and results suggest that spirituality may be an important element to improving personal functioning.

There are several areas that would benefit from further research. This study did not find significant gender differences in depressive symptoms, and because these results contradict the established literature on other age groups, it would be beneficial to test these variables again with a larger sample of college students. It would also be good to run more extensive correlations

specifically between depression and quality of personal relationships. When asking about quality of relationships with parents, it would be interesting to ask participants to indicate if their parents were married, divorced, widowed, or even involved in their life. This would give additional insight into the quality of relationships with parents.

There also needs to be more research conducted using ethnic minorities. The sample in this study was not diverse enough to provide adequate information, so this should be replicated with a larger, more diverse population. All of these ideas for future research will help fill the gaps in the existing literature and further the knowledge of this field as a whole.

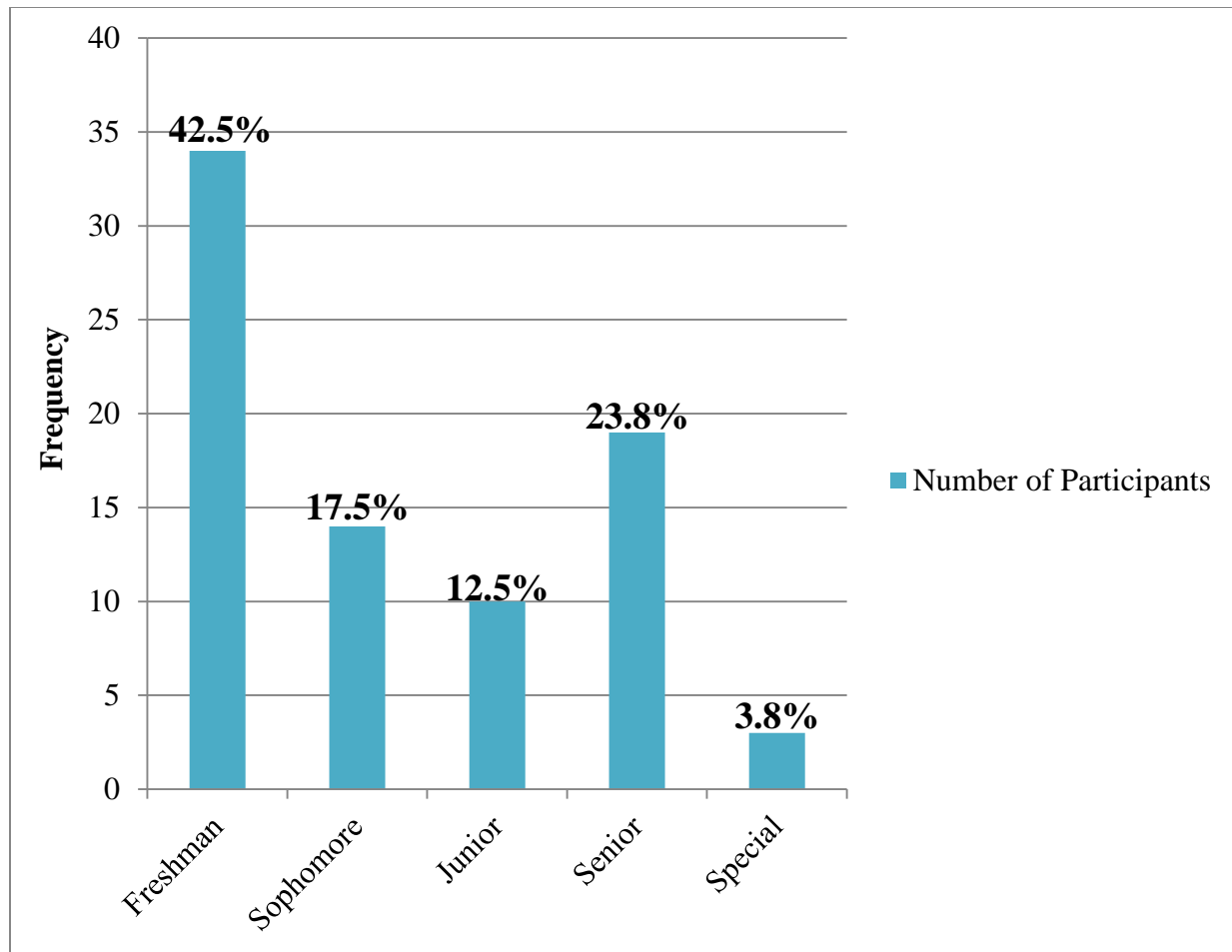
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*Figure 1.* Distribution of Class Standing Among College Students

Table 1  
*Means and Standard Deviations of Selected Variables in Study*

Variable	<i>M</i>	<i>SD</i>	<i>n</i>
Age	20.71	3.06	80
Depression	15.81	9.27	77
Spirituality	20.07	3.61	79
Quality of Relationship with Mom	98.69	16.39	80
Quality of Relationship with Dad	93.84	19.18	78
Quality of Relationship with Peers	98.03	15.50	79

Table 2  
*Gender Differences in Quality of Personal Relationships Among College Students*

Relationship	Male		Female	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Quality with Mom	98.78	15.02	98.58	18.05
Quality with Dad	94.77	19.12	92.81	19.45
Quality with Peers	94.25	16.80	102.32	12.78

Table 3

*Academic Standing Differences in Quality of Personal Relationships Among College Students*

Class Standing	<u>Quality with Mom</u>			<u>Quality with Dad</u>			<u>Quality with Peers</u>		
	M	SD	n	M	SD	n	M	SD	n
Freshman	99.99	17.13	34	96.33	17.87	33	98.97	18.16	33
Sophomore	95.14	22.39	14	97.71	16.12	14	99.71	14.39	14
Junior	97.25	14.20	10	90.35	22.06	10	94.75	14.74	10
Senior	100.00	12.34	19	90.79	21.87	19	97.32	13.27	19
Special	97.00	9.00	3	72.00	8.49	2	95.33	9.07	3

Table 4

*Age Level Differences in Quality of Personal Relationships Among College Students*

Relationship	<u>Ages 18-20</u>		<u>Ages 21-30s</u>	
	t	p	t	p
Quality with Mom	.03	.98	98.62	13.31
Quality with Dad	96.04	18.14	89.91	20.67
Quality with Peers	99.58	16.31	95.36	13.86

Table 5  
*Correlation Matrix Between Spirituality and Quality of Personal Relationships Among College Students*

Variable	1	2	3	4
1. Spirituality	—	.00*	.00*	.00*
2. Quality with Mom		—	.00*	.03*
3. Quality with Dad			—	.00*
4. Quality with Peers				—

\* $p < .05$

Table 6  
*Ethnicity and Depressive Symptoms Among College Students*

<u>Ethnicity</u>	<u>Depressive Symptoms</u>		
	<i>M</i>	<i>SD</i>	<i>n</i>
White	14.40	9.33	45
Black	15.00	7.87	4
Asian	29.33	9.02	3
Native Hawaiian/Pacific Islander	29.25	7.42	2
Other race alone	13.78	6.91	9
Two or more races	17.07	8.13	14